

noaa restoration



Collaborating *with Communities*

NOAA works with local, tribal, state and regional groups to restore coastal habitats by...

- ≈ *Funding on-the-ground restoration projects;*
- ≈ *Facilitating volunteer participation;*
- ≈ *Developing partnerships;*
- ≈ *Providing information, analytical tools and technical expertise; and*
- ≈ *Fostering long-term stewardship of natural resources.*



<http://restoration.noaa.gov>

SUCCESSFUL HABITAT RESTORATION REQUIRES COLLABORATION AMONG CITIZENS AND RESOURCE MANAGERS AT ALL LEVELS. NOAA'S COMMUNITY-BASED RESTORATION EFFORTS DEPEND UPON PARTNERSHIPS AT NATIONAL, REGIONAL, AND LOCAL LEVELS TO PROMOTE CONSERVATION AND STEWARDSHIP OF COASTAL RESOURCES. NOAA'S COMMUNITY INVOLVEMENT EXTENDS BEYOND SIMPLY PROVIDING THE FUNDS. WE ALSO IDENTIFY AND EVALUATE POTENTIAL PROJECTS, COLLECT ECOLOGICAL DATA, FOSTER COMMUNITY SUPPORT, PROVIDE TECHNICAL EXPERTISE, AND BUILD PARTNERSHIPS TO SUPPORT SIMILAR RESTORATION EFFORTS IN OTHER AREAS. FROM INNOVATIVE FIELD-MEASUREMENT TECHNIQUES THAT SUPPORT BETTER PROJECT DESIGNS TO GIS-BASED TOOLS THAT DELIVER ENVIRONMENTAL PLANNING INFORMATION TO COMMUNITY PARTNERS, NOAA HAS A WEALTH OF CAPABILITIES FOR RESTORING OUR NATION'S COASTAL AREAS.

CASE STUDY

Town Brook Herring Run Restoration, Plymouth, Massachusetts

Herring were credited with helping the Pilgrims survive their first harsh winters in Plymouth, Massachusetts. To reach prime spawning grounds, river herring must ascend Town Brook, which begins at Plymouth Harbor and ends a mile and a half upstream in a 250-acre freshwater pond. A derelict dam and two aging fish ladders blocked passage for this historic fish run. Prior to the restoration of Town Brook, adult herring were transported upstream manually to spawn and the waterway sustained a minimal fish run of 20,000 to 40,000 each year.

Although the idea for this project was initiated locally, many partners soon joined the effort. A broad coalition of government, industry, and citizen groups provided many hours, as well as technical and financial help, to replace the fish ladders and remove the derelict dam. Contributions were made by NOAA, Natural Resources

Conservation Service, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Commonwealth of Massachusetts, U.S. Environmental Protection Agency, U.S. Army Reserves, Town of Plymouth, Coastal America, FishAmerica Foundation, National Fish and Wildlife Foundation, Battelle Ocean Science, Inc., American Rivers and Gulf of Maine Council on the Marine Environment.

The project was completed in September 2002. Thanks to the cooperation of all participants, the local herring run should increase significantly, possibly up to 600,000 fish annually, and resource managers no longer need to manually transport fish upstream. The dam removal—the first of its kind in coastal Massachusetts—sets a precedent for removing some of the thousands of dams blocking fish passage in the region.

CASE STUDY

Barren Island Restoration Project, Chesapeake Bay, Maryland

Over the past century, the Chesapeake Bay has lost hundreds of acres of tidal wetlands, which once provided essential habitat for fish and shellfish, migratory waterfowl, and shorebirds. Barren Island is one of many islands in central Chesapeake Bay that has eroded dramatically. Losing Barren Island would mean less habitat for local wildlife and the loss of a barrier that protects nearby seagrass beds from destruction.

In 2000, experimental geotextile tubes filled with sand dredged from the nearby ship channel were used to expand and stabilize the island's shoreline. In 2001, NOAA partnered with the National Aquarium in Baltimore, National Fish and Wildlife Foundation, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Department of Agriculture, Friends of the Blackwater National Wildlife Refuge, and U.S. Environmental Protection Agency to create an eleven-acre tidal wetland on dredge material placed behind the geotextile tubes. A cadre of volunteers learned new restoration techniques, planted the wetland, and is helping monitor the project to determine how well these techniques perform. NOAA also installed a tide gauge, an offshore wave buoy, and a current meter to evaluate how wave energy, prevailing wave direction, and tidal elevations affect experimental wetland planting configurations. These data will be used to improve the success of future restoration activities on the island and other sites in the bay.

This restoration project created a functioning wetland, introduced techniques to improve restoration success, educated volunteers, bolstered coastal stewardship by engaging citizens in restoration, and benefited fish and wildlife species.

